

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Michael Cafaro

Serial No.: 10/821,109

Filing Date: April 8, 2004

For: ION CURLING IRON AND
STRAIGHTENER

Group Art Unit: 3732

Examiner: Running, R.

Atty. Dkt. No.: HEL177/4-10US/78001

Confirmation No. 8231

BRIEF ON APPEAL

**VIA EFS-WEB
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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

The present appeal brief is filed in support of Appellants' Notice of Appeal of the Final Official Action issued December 18, 2007.

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CAFARO APPEAL BRIEF

I. REAL PARTY IN INTEREST

The real parties in interest are Michael Cafaro, Rick Placencia, Gary Koenemann and Helen of Troy Ltd, of Bridgetown, Barbados.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

The application as filed contained claims 1-13. Claim 8 has been cancelled. Claims 1-7 and 9-13 are pending, stand rejected and are the basis of this appeal.

IV. STATUS OF AMENDMENTS

Claims 7 and 10 were amended after the Final Office Action and the amendment were entered according to Office Action mailed March 19, 2008.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The current application contains 5 independent claims: 1, 5, 7, 10, and 11.

Claim 1 is drawn to a hair styling device that heats the hair of a user by conduction of heat from a heated surface to the hair of a user as described in page 2 in paragraph [00011]. The invention of Claim 1 further comprises an ion generator system **1**, a fan **4**, and a motor, wherein

the fan directs ion flow onto the hair of the user during use as described on page 2 in paragraph [00011] and illustrated in Figure 3.

Claim 5 is drawn to a flat straightener that comprises, an ion generator system **58**, a fan **57** and a motor **56**, wherein the fan directs a flow of ions produced by the ion generator system on the hair of a user during use as described in paragraph [00014] on page 3 and illustrated in Figure 5.

Claim 7 is drawn to a curling iron comprising a housing **22**, a barrel **24**, a heater **18**, a flipper **7**, an ion generation system **1**, a motor, a fan **4**, air inlets **25**, an air guide **6**, and outlet holes **26** as illustrated in Figures 1 and 3 and described in paragraphs [00011] through [00013] on pages 2 and 3 of the specification. The housing **22** of Claim 7 is configured to form a handle portion as described in paragraph [00011] on page 2. The heater **18** of the invention of Claim 7 is configured to heat the exterior surface of the barrel as described in paragraph [00012] on pages 2-3. As described in paragraph [00013] on page 3, the flipper **7** is mechanically linked to a flipper actuator **8** as shown in Figure 3. The ion generation system **1** is contained within the handle portion and comprises one or more anode pins **2** and one or more cathode rings **3** configured to generate a flow of negative ions during use as described in paragraph [00012] on pages 2-3 and shown in Figure 3.

Claim 10 is drawn towards a curling iron comprising a housing **22**, a barrel **24**, a heater **18**, a flipper **7**, an ion generation system **1**, a motor, a fan **4**, air inlets **25**, an air guide **6**, and outlet holes **26** as illustrated in Figures 1 and 3 and described in paragraphs [00011] through [00013] on pages 2 and 3 of the specification. The housing **22** of Claim 10 is configured to form a handle portion as described in paragraph [00011] on page 2. The heater **18** of the invention of Claim 10 is configured to heat the exterior surface of the barrel as described in paragraph [00012] on pages 2-3. As described in paragraph [00013] on page 3, the flipper **7** of Claims 10 is mechanically linked to a flipper actuator **8** and disposed within the housing as shown in Figure 3. The ion generation system **1** is contained within the handle portion and comprises one or more anode pins **2** and one or more cathode rings **3** configured to generate a flow of negative ions during use as described in paragraph [00012] on pages 2-3 and shown in Figure 3.

Claim 11 is drawn to a flat straightener that comprises, a housing **50**, heating plates **51**, an ion generator system, and an airflow system as described in paragraphs [00014] and [00015] on page 3 and illustrated in Figure 5. The ion generation system comprises an ion generator **58** connected to an array of anode pins **59** each associated with a cathode ring **60**, wherein each anode pin is coaxial with an annular opening in the respective cathode ring as described in paragraph [00015] on page 3. The air flow system of Claim 11 comprises a motor **56**, a fan **57**, an air guide contained within the housing, air inlets **61** and air outlets **62** as described on page 3 in paragraph [00015].

VI. GROUNDS OF REJECTION TO BE REVIEWED UPON APPEAL

1. Are Claims 1, 2, 4, 7, 9 and 10 properly rejected under 35 U.S.C. § 103(a) based on Leung (U.S. Patent Publication No. 2003/0052115) in view of Nakagawa *et al.* (U.S. Patent Publication No. 2002/0189128)?

2. Are Claims 1, 3-6, and 11-13 properly rejected as being unpatentable over Cha (U.S. Patent Publication No. 2005/0056631) in view of Nakagawa *et al.* (U.S. Patent Publication No. 2002/0189128)?

VII. ARGUMENT

1 The rejection of 1, 2, 4, 7, 9 and 10 based on Leung in view of Nakagawa *et al.* should be overturned because this combination of references lacks at least one feature of the claimed inventions.

The Leung reference (U.S. Patent Publication No. 2003/0052115) describes a hair styling device best described as a “hot air curling iron.” *See* Leung, ¶ [0005]. A “thermal hot air iron drives hot air thorough a barrel and through holes in the wall of the barrel, “as compared with “[c]urling irons and some brush irons [which] employ one or more types of heating elements in the barrel to heat the barrel.” *Id.* Although, curling irons are generally useful for curling hair, the method of achieving this goal can be very different. Leung does not disclose a hair styling device that heats the hair of a user by conduction of heat from a heated surface to the hair of a user.”

The Final Office Action alleges that “Leung discloses a hair styling device that heats hair by conduction of heat from a heated surface (see para 0028) and includes a fan and a motor.” 12/18/2007, Final Office Action, at 2. However, the Leung reference in paragraph 0028 explicitly states that “[t]he heat from heater 216 is drawn to heat sink 208 and preferably, **via heat air apertures** to the exterior of barrel portion 300 for styling hair.” Leung, ¶ [0028] (emphasis added). The following paragraph goes on to describes how the Leung reference allows for a curling iron that produces hot air at a higher temperature. Leung, ¶ [0029]. Applicants respectfully submit that Leung does not teach the “heat[ing] the hair of a user by conduction of heat from heated surface” as asserted in the Final Office Action.

In response to Applicants’ argument “that Leung makes no reference to the heat-conductive properties of the barrel,” the Final Office Action states that “Leung discloses in paragraph 15 ‘a barrel or barrel portion having a cavity and having a heatable surface.’” 12/28/07 Final Office Action, at 4. Based on this statement, it is apparent that the term “heatable” refers to the interior surface of the barrel since it immediately follows the recitation that the barrel have a cavity. Leung, ¶ [0015]. Furthermore, the complete statement from the Leung reference refers to “a barrel or barrel portion having a cavity and having a heatable surface **with one or more vents to release the heat from the barrel.**” Leung, ¶ [0015] (emphasis added). The complete statement in the Leung reference further clarifies the fact that heat travels out of the barrel via vents and not via the barrel’s surface. Moreover to remove any ambiguity in understating the Leung reference, the last element is described as “a convector to direct heat from the heater through the vents of the barrel portion.” *Id.* Not only does the Leung reference explicitly reference convection as opposed to conduction, it states that heat travels through vents and not through the surface of the barrel. Applicants respectfully submit that the Examiner’s characterization of the Leung reference s completely contrary to Leung’s teachings.

The Final Office Action concedes that Leung dos not teach a device that contains an ion generator. 12/28/2007 Final Office Action, at 2. However, the Final Office Action alleges that the Nakagawa reference supplies the features missing form the Leung reference. *Id.* The Nakagawa reference however, does not describe or suggest “heat[ing] the hair of a user by conduction of heat from a heated surface to the hair of a user.” The Nakagawa reference, entitled “Hairdryer,” describes a hot air hairdryer, which, much like a hot air curling iron, does

not utilize heat transfer via conduction and instead relies on the use of air as an intermediary. *See* Nakagawa, ¶ [0006] (“In general, in one aspect, the present invention relates to a hairdryer...”). Applicants respectfully note that the Examiner has not alleged that Nakagawa contains any features of the claimed invention other than an ion generator. In addition to the other features that it lacks, it further it lacks “heat[ing] the hair of a user by conduction of heat from a heated surface” and therefore, it alone or in combination with Leung does not practice the claimed invention.

Because the Leung reference and the Nakagawa reference do not individually or in combination contain a claimed feature of the present invention, Applicants respectfully submit that the rejection based on the combination of those two references is improper.

2. The rejection of 1, 3-6 and 11-13 based on Cha in view of Nakagawa *et al.* should be overturned because Cha is not available as prior art.

The Final Office Action rejects claims 1, 3-6 and 11-13 as being unpatentable over Cha (United States Patent Publication No. 2005/0056631) in view of Nakagawa *et al.* (United States Patent Publication No. 2002/0189128). The Cha reference has a publication date of September 16, 2003. Because it was filed within one year of the filing date of the present application, this reference can be overcome by a declaration stating that the subject matter of the present invention had been reduced to practice in this country prior to September 16, 2003. Despite the Applicants having submitted such a declaration, the Examiner has refused to withdraw this objection.

On October 19, 2007, prior to the Final Office Action, Applicants filed a declaration signed by Michael CaFaro, which *inter alia* declared that:

Prior to September 16, 2003, the filing date of the Cha reference, (United States Patent Publication No. 2005/0050056631), we had conceived and tested the claimed subject matter in the [present application], in this country, as evidenced by the invention disclosure attached hereto as Exhibit A. This invention disclosure was prepared prior to September 16, 2003, and thus evidences our conception and reduction to practice of the disclosed invention prior to the filing of the Cha reference.

In the Final Office Action, the Examiner rejected this declaration on the grounds that it fails to disclose acts in this country and was not signed by all inventors. 12/28/2007 Final Office

Action, at 3. Applicants respectfully believe that this declaration did disclose acts performed in this country by the words “in this country” with reference to the fact that Michael CaFaro and the other named inventors are listed as residing in El Paso, Texas. *See* Application Datasheet. However, Applicants do not dispute the fact that the declaration was not signed by all inventors.

In response to the Final Office Action on February 19, 2008, Applicants filed a declaration signed by Michael CaFaro, Rick Placencia, and Gary Koenemann which declared that:

Prior to September 16, 2003, the filing date of the Cha reference, (United States Patent Publication No. 2005/0050056631), we had conceived and tested the claimed subject matter in the [present application] in the United States, as evidenced by the invention disclosure attached hereto as Exhibit A. This invention disclosure was prepared prior to September 16, 2003, and thus evidences our conception and reduction to practice of the disclosed invention prior to the filing of the Cha reference.

Although the subsequent declaration refers to the same Exhibit A as the one included in the earlier declaration, there is no dispute that Applicants inadvertently failed to include it in their February 19, 2008 submission. This fact was identified by the Examiner in the Advisory Action mailed March 19, 2008. Applicants believe that the nature of the error was readily apparent, and that under the circumstances it should have been clear what was referred to as Exhibit A in the declaration. However, to rectify this omission, Applicants refiled the declaration submitted on February 19, 2008 with the proper Exhibit A attached and a statement explaining the circumstances of Applicants failure to submit the declaration sooner on April 18, 2008.

In Response to the April 18, 2008 submission, the Examiner claims that the evidence is insufficient because it fails to “establish due diligence from prior to the reference date to subsequent actual reduction to practice, where the conception occurs prior to the date of the reference, but reduction to practice is afterward.” This assertion by the Examiner is misguided because Applicants do not allege conception prior to the Cha reference, but in fact have demonstrated actual reduction to practice. As stated in the declaration, Applicants conceived and reduced to practice the claimed invention prior to the priority date of the Cha reference. *See* 2/19/2008 Inventors Declaration, ¶ 2.

Lastly, the Examiner also appears to reject the declaration under 37 CFR 1.116(e) for failure to show good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. There should be no dispute as to the necessity of this evidence as by establishing an earlier reduction to practice date, Applicants can overcome the rejection. Regarding delay in submission, Applicants respectfully note that both the declaration signed by all inventors and the evidence, Exhibit A, were submitted by February 19, 2008 albeit not together until April 18, 2008. With respect to Michael CaFaro, the affidavit and evidence were submitted on October 19, 2007. This clearly is not an example of a last minute declaration as the underlying facts have been in the record since October 19, 2007.

Because Applicants have clearly established reduction to practice of the claimed invention, prior to the filing date of the Cha reference, the rejection based on Cha is clearly improper as it is not available to form the basis of an obvious rejection.

Conclusion

The combination of Leung and Nakagawa lacks all the features of Claims 1, 2, 4, 7, 9 and 10 and is therefore improper. Moreover, because Applicants' invention was reduced to practice prior to the filing date of the Cha reference, the Cha reference cannot form the basis of an obvious rejection.

In the meantime, if the Examiner has any questions or comments, or believes that certain amendments of the claims would advance this case toward allowance, a telephone call to the undersigned Appellant's representative at 512.542.8453 is earnestly solicited.

Respectfully submitted,

/R. Floyd Walker/

R. Floyd Walker
Reg. No. 55,707
Attorney for Appellant

VINSON & ELKINS
First City Tower
1001 Fannin Street
Suite 2300
Houston, TX 77002-6760
512.542.8453

Date: July 21, 2008

VIII. CLAIMS APPENDIX

1. A hair styling device that heats the hair of a user by conduction of heat from a heated surface to the hair of a user, wherein the device further comprises an ion generator system, a fan, and a motor, wherein the fan directs ion flow onto the hair of the user during use.

2. The device of claim 1, which is a curling iron.

3. The device of claim 1, which is a flat straightener.

4. The device of claim 1, wherein the ion generation system comprises an ion generator connected to positive and negative electrodes, comprising one or more anode pins and one or more cathode rings.

5. A hair styling device that is a flat straightener that comprises:

an ion generator system;

a fan; and

a motor;

wherein the fan directs a flow of ions produced by the ion generator system on the hair of a user, during use.

6. The device of claim 5, wherein the ion generation system comprises an ion generator connected to positive and negative electrodes, comprising one or more anode pins and one or more cathode rings.

7. A curling iron comprising:

a housing forming a handle portion;

a barrel adjoined to the housing;

a heater contained in the barrel for heating the exterior surface of the barrel during use;

a flipper mechanically linked to a flipper actuator;

an ion generator system contained within the handle portion, wherein the ion generator system comprises an ion generator electrically connected to one or more anode pins and one or more cathode rings configured to generate a flow of negative ions during use;

a motor and a fan connected to the motor;

air inlets formed in the housing and in fluid communication with the fan;

an air guide for directing air and ions propelled by the fan into the barrel;

and outlet holes formed in the barrel to direct air and ion flow onto the hair of a user during use.

8. (cancelled)

9. The curling iron of claim 7, further comprising a power cord swivel.

10. A curling iron comprising:

a housing forming a handle portion;

a barrel adjoined to the housing;

a heater contained in the barrel for heating the exterior surface of the barrel during use;

a flipper mechanically linked to a flipper actuator, wherein the flipper actuator is disposed in the housing of the handle portion;

an ion generator system contained within the handle portion, wherein the ion generator system comprises an ion generator electrically connected to one or more anode pins and one or more cathode rings configured to generate a flow of negative ions during use;

a motor and a fan connected to the motor;

air inlets formed in the housing;

an air guide for directing air and ions propelled by the fan into the barrel;

and outlet holes formed in the barrel to direct air and ion flow onto the hair of a user during use.

11. A flat straightener comprising:

a housing;

heating plates for contacting and styling a user's hair during use;

an ion generator system contained within the housing and comprising:

an ion generator connected to an array of electrodes, wherein the array of electrodes comprises one or more anode pins, each associated with a cathode ring,

wherein each anode pin is coaxial with an annular opening in the respective cathode ring; and

an airflow system comprising a motor, a fan and an air guide contained within the housing, air inlets formed in the housing and air outlets formed adjacent at least one heating plate;

wherein during use, the fan draws air into the housing through the air inlets and into the air guide, wherein the air is directed across the electrode arrays and out the air outlets and onto the hair of a user during use.

12. The flat straightener of claim 11, further comprising an LED display to indicate the state of the flat straightener.

13. The flat straightener of claim 11, further comprising an adjustable heat setting.

IX. EVIDENCE APPENDIX

A. Declaration of Micahel CaFaro submitted October 19, 2007

B. Declaration of Michael CaFaro, Rick Placencia, and Gary Koenemann submitted February 19, 2008

C. Declaration of Michael CaFaro, Rick Placencia, and Gary Koenemann submitted April 18, 2008.

X. RELATED PROCEEDINGS APPENDIX

None.

Exhibit A

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Michael Cafaro, et al.

Serial No.: 10/821,109

Filed: April 8, 2004

For: ION CURLING IRON AND
STRAIGHTENER

Group Art Unit: 3732

Examiner: Manahan, T

Atty. Dkt. No.: HEL177/78001/CIP/TSCO

DECLARATION UNDER 37 C.F.R. 1.131

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Michael Cafaro, declare the following:

1. I am one of the joint inventors of all claims in U. S. Patent Application Serial No. 10/821,109 identified above. I, along with Gary Koenemann and Rick Placencia are the only inventors of all subject matter described in this application.
2. Prior to September 16, 2003, the filing date of the Cha reference, (United States Patent Publication No. 2005/0056631), we had conceived and tested the claimed subject matter in the application identified above, in this country, as evidenced by the invention disclosure attached hereto as Exhibit A. This invention disclosure was prepared prior to September 16, 2003, and thus evidences our conception and reduction to practice of the disclosed invention prior to the filing of the Cha reference.

3. The invention disclosure supports prior invention. It contains the drawings that embody the design of the ion curling iron and flattener. These drawings are substantially identical to the drawings submitted with this application. This disclosure also contains a description of the invention of "a hair styling curling iron and flat straightener with fast heat-up performance which also generates negative ion airflow." It goes on to describe the manner in which this invention is achieved.

4. I declare that all statements made above of my own knowledge are true, and that all statements made on the information I believe to be true. Further, I declare that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereupon.

Signature:

Michael Cafaro

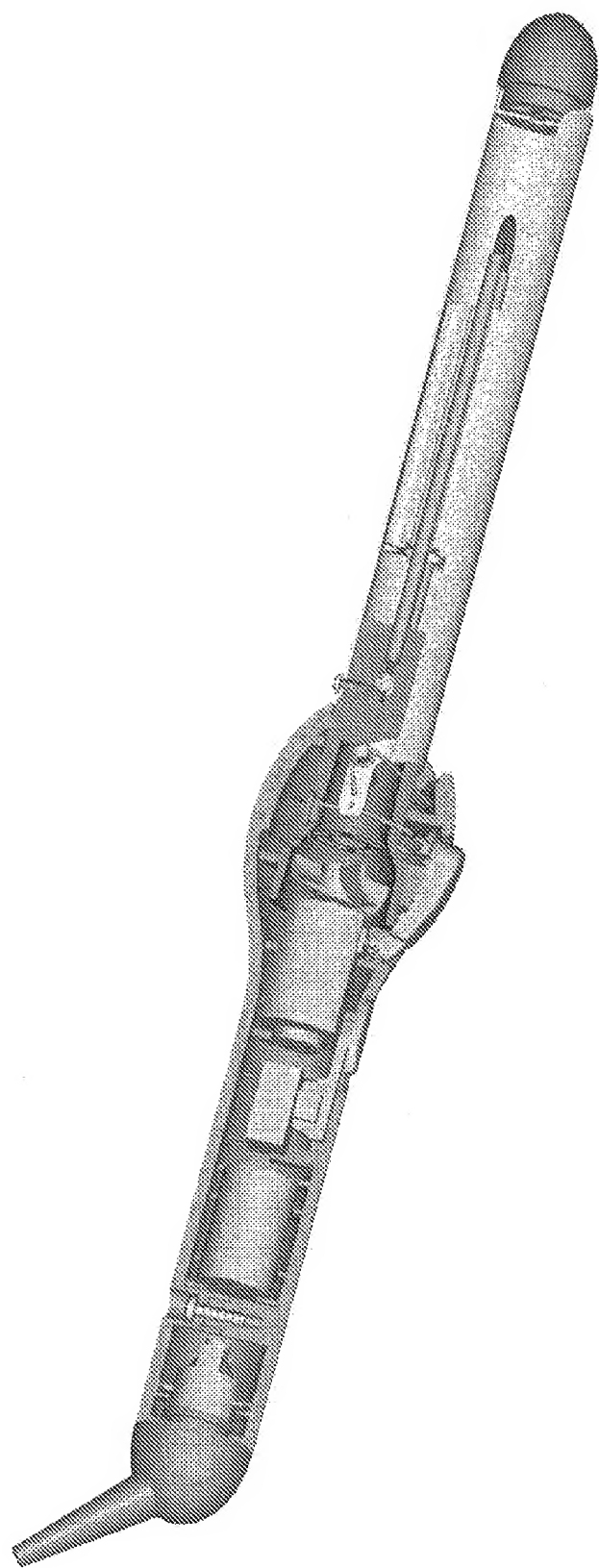
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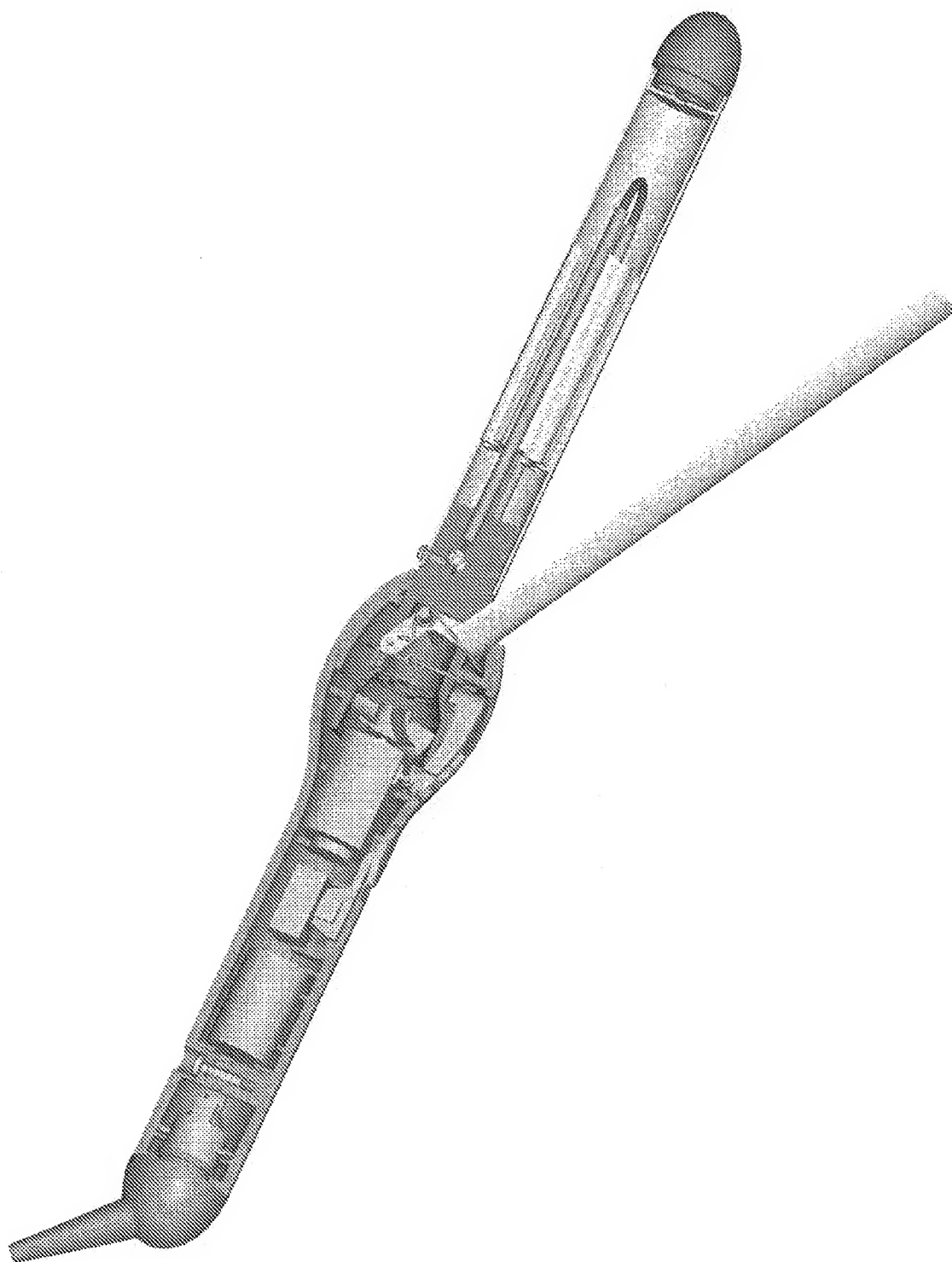
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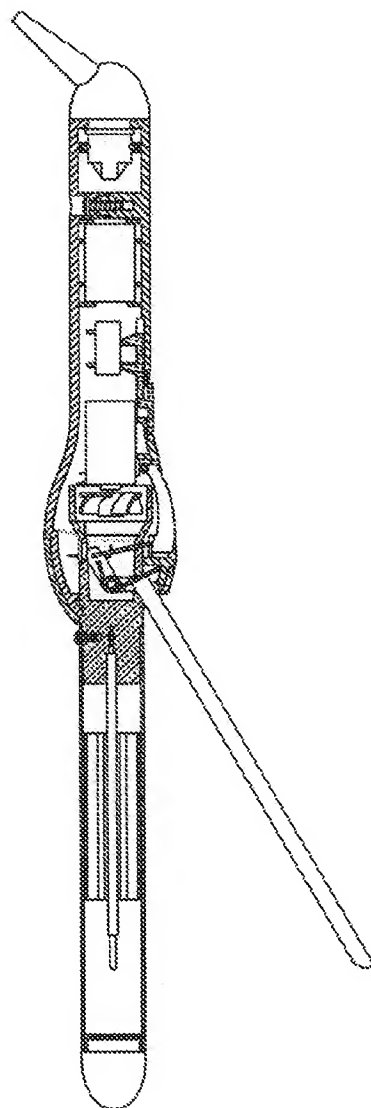
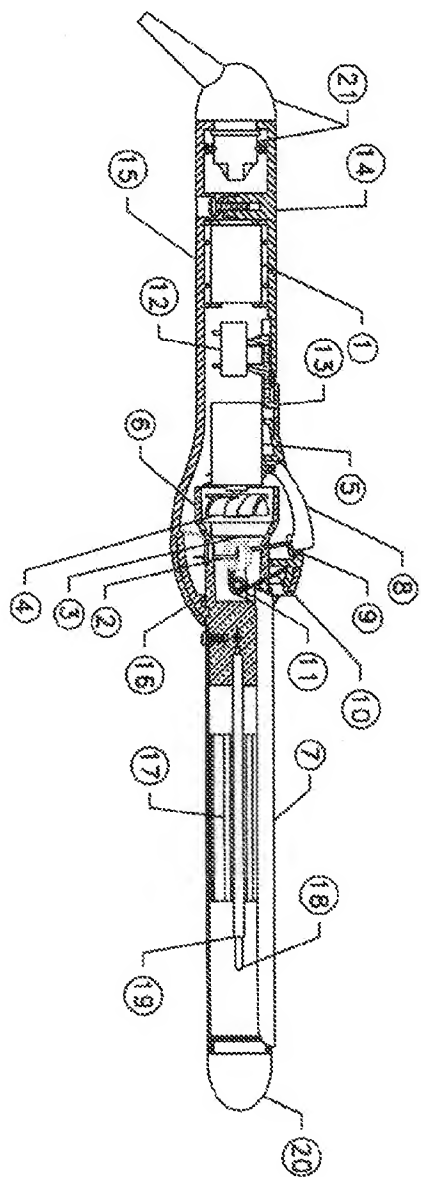
Ion Hair Styling Curling Iron and Flat Straightener

A hair styling curling iron and flat straightener with fast heat-up performance which also generates negative ion airflow. The negative ion airflow system includes an ion generator whose output is coupled between positive and negative electrode arrays. Preferably, the positive electrode array is pointed electrodes and the negative electrode array includes annular-like electrodes having a central opening coaxial with the associated pointed electrode. Preferably, the annular-like electrodes are formed from a single sheet of metal by extrusion or punching such that the surface of the annular-like electrodes is smooth and continuous through the opening through which the airflows. The negative ion system further includes a small DC motor with a fan that creates airflow to safely push the negative ions out the curling iron barrel or the flat plates of the straightener via small openings and safely onto the users' hair.

The hair styling curling iron also incorporates a unique feature through its flipper/tong design. This flipper/tong design incorporates the flipper/tong within the handle, eliminating the previous cumbersome and bulky thumb grip design. This new flipper/tong design will prevent the user from having to extend their fingers and thumb in order to have to actuate the flipper. It will also prevent the user from burning their fingers and thumb on previous design.







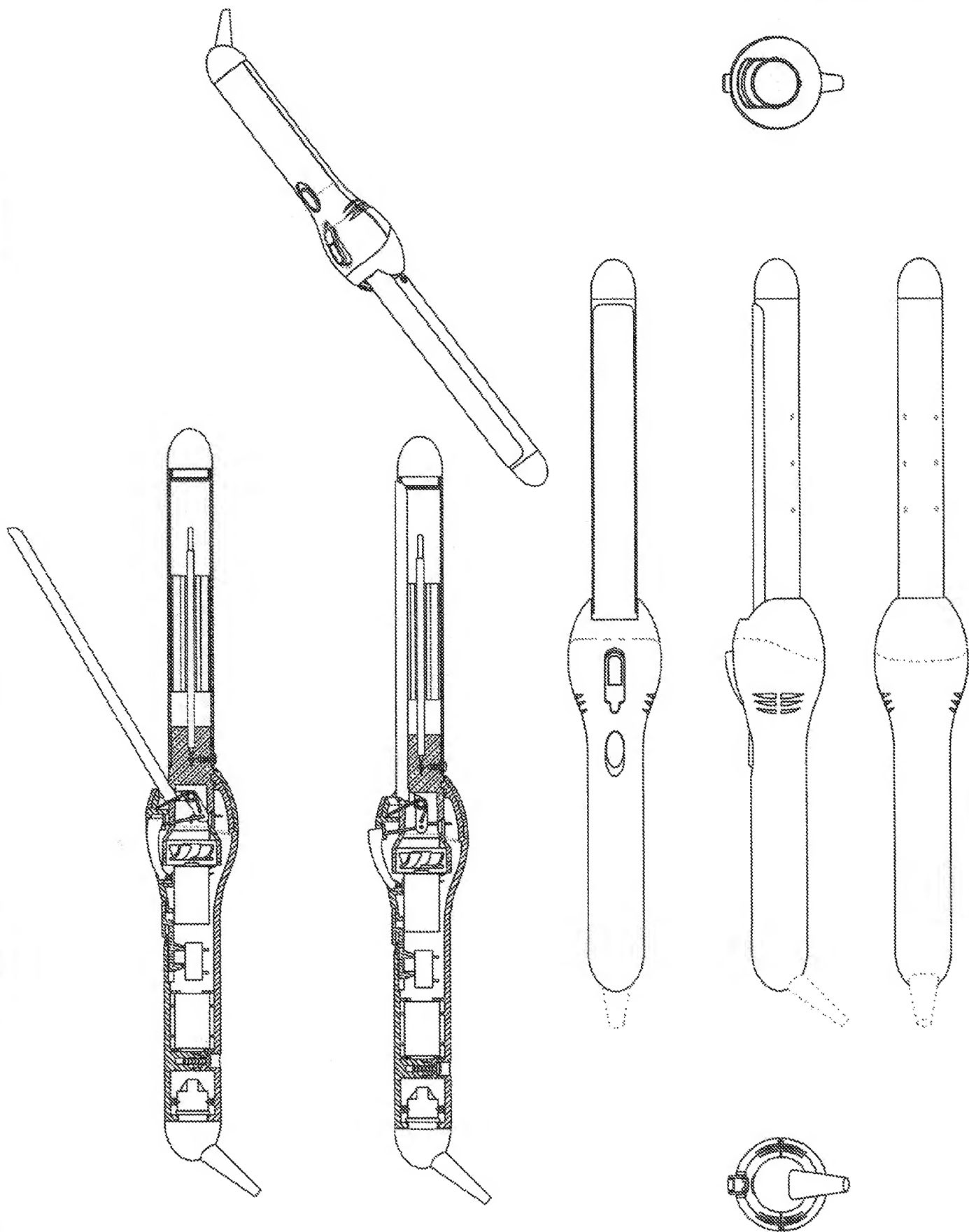


Exhibit B

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Michael Cafaro, et al.

Serial No.: 10/821,109

Filed: April 8, 2004

For: ION CURLING IRON AND
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DECLARATION UNDER 37 C.F.R. 1.131

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

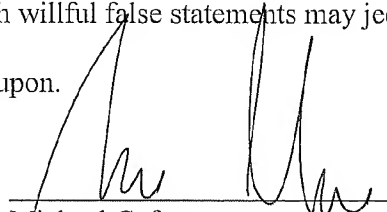
We, Michael Cafaro, Gary Koenemann, and Rick Placencia, declare the following:

1. We are the joint inventors of all claims in U. S. Patent Application Serial No. 10/821,109 identified above. We, Michael Cafaro, Gary Koenemann and Rick Placencia are the only inventors of all subject matter described in this application.
2. Prior to September 16, 2003, the filing date of the Cha reference, (United States Patent Publication No. 2005/0056631), we had conceived and tested the claimed subject matter in the application identified above in the United States, as evidenced by the invention disclosure attached hereto as Exhibit A. This invention disclosure was prepared prior to September 16, 2003, and thus evidences our conception and reduction to practice of the disclosed invention prior to the filing of the Cha reference.

3. The invention disclosure supports prior invention. It contains the drawings that embody the design of the ion curling iron and flattener. These drawings are substantially identical to the drawings submitted with this application. This disclosure also contains a description of the invention of "a hair styling curling iron and flat straightener with fast heat-up performance which also generates negative ion airflow." It goes on to describe the manner in which this invention is achieved.

4. We declare that all statements made above of our own knowledge are true, and that all statements made on the information we believe to be true. Further, we declare that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereupon.


Signature:


Michael Cafaro

Date

02-18-08


Signature:


Gary Koenemann

Date

02-19-08

Signature:


Rick Placencia

Date

2/19/08

Exhibit C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Michael Cafaro, et al.

Serial No.: 10/821,109

Filed: April 8, 2004

For: ION CURLING IRON AND
STRAIGHTENER

Group Art Unit: 3732

Examiner: Running, R.

Atty. Dkt. No.: HEL177/78001/4-010US

DECLARATION UNDER 37 C.F.R. 1.131

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

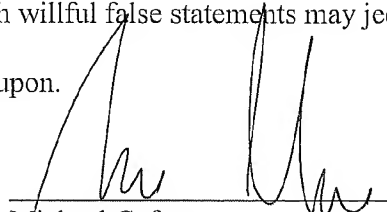
We, Michael Cafaro, Gary Koenemann, and Rick Placencia, declare the following:

1. We are the joint inventors of all claims in U. S. Patent Application Serial No. 10/821,109 identified above. We, Michael Cafaro, Gary Koenemann and Rick Placencia are the only inventors of all subject matter described in this application.
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4. We declare that all statements made above of our own knowledge are true, and that all statements made on the information we believe to be true. Further, we declare that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereupon.


Signature:


Michael Cafaro

Date

02-18-08


Signature:


Gary Koenemann

Date

02-19-08

Signature:


Rick Placencia

Date

2/19/08

Ion Hair Styling Curling Iron and Flat Straightener

A hair styling curling iron and flat straightener with fast heat-up performance which also generates negative ion airflow. The negative ion airflow system includes an ion generator whose output is coupled between positive and negative electrode arrays. Preferably, the positive electrode array is pointed electrodes and the negative electrode array includes annular-like electrodes having a central opening coaxial with the associated pointed electrode. Preferably, the annular-like electrodes are formed from a single sheet of metal by extrusion or punching such that the surface of the annular-like electrodes is smooth and continuous through the opening through which the airflows. The negative ion system further includes a small DC motor with a fan that creates airflow to safely push the negative ions out the curling iron barrel or the flat plates of the straightener via small openings and safely onto the users' hair.

The hair styling curling iron also incorporates a unique feature through its flipper/tong design. This flipper/tong design incorporates the flipper/tong within the handle, eliminating the previous cumbersome and bulky thumb grip design. This new flipper/tong design will prevent the user from having to extend their fingers and thumb in order to have to actuate the flipper. It will also prevent the user from burning their fingers and thumb on previous design.

